Title: METHOD AND SYSTEM FOR CATEGORIZING ITEMS IN BOTH ACTUAL AND VIRTUAL CATEGORIES

# **REMARKS**

This responds to the Office Action mailed on July 10, 2007.

Claims 1, 14, 20, 28 and 29 are amended, claims 2, 5, 7, 13 and 19 are canceled, and claims 30 and 31 are added; as a result, claims 1, 3-4, 6, 8-12, 14-18 and 20-31 are now pending in this application.

### §101 Rejection of the Claims

The claims 28 and 29 were rejected for the reason that the claims recite a machinereadable medium in paragraph 71 of the specification.

In response to the rejection the specification has been amended to disavow "carrier waves."

Claims 1, 3-6, 8-12 and 28-29 should not be rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter for the reason the aforementioned claims recite a result that is concrete, tangible and useful.

Applicable Law under 35 U.S.C. §101

A claim is limited to a practical application when the method, as claimed, produces a concrete, tangible and useful result.

AT&T v. Excel Communications, Inc., 172 F.3d

Another consideration is whether the invention produces a "concrete" result. Usually, this question arises when a result cannot be assured. In other words, the process must have a result that can be substantially repeatable or the process must substantially produce the same result again.

<u>Id.</u> citing In re Swartz, 232 F.3d 862, 864, 56 USPQ2d 1703, 1704 (Fed. Cir. 2000)

The tangible requirement does not necessarily mean that a claim must either be tied to a particular machine or apparatus or must operate to change articles or materials to a different state or thing. However, the tangible requirement does require that the claim must recite more than a Sec. 101 judicial exception, in that the process claim must set forth a practical application of that Sec. 101 judicial exception to

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produce a real-world result (emphasis added).

Id. citing Benson, 409 U.S. at 71-72, 175 USPQ at 676-77.

...a claimed computer computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permits the computer programs functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

MPEP 2106.01 I.

Applicant respectfully submits that claims 1, 3-6 and 8-12 should not be rejected under 35 U.S.C. § 101 for the reason that the claimed invention of independent claim 1 achieves a final result that is concrete, tangible and useful.

Claim 1 recites a final result that is useful, tangible, and concrete. Claim 1, for example, recites "a method of constructing category structures within a database" that includes "defining in the database a first structure of categories as a hierarchy of categories to classify a data item," "defining in the database a second structure of categories as an alternative second hierarchy of categories to provide an alternative classification of the data item" and "defining in the database the second category to point to the first category."

The defining of such a category structures is useful because such construction enables a classification of the data item and an alternative classification of the same data item. Further, such a construction may not be said to be "an abstract idea of defining" (Final Office Action, mailed 8.31.2006, page two) because the category structures are defined in the database. In other words, the category structures do not come into existence in the databases of their own accord—they must be defined. For example, a person having ordinary skill in the art may generate a script that includes an SQL "define" statement to define the category structures in the database. Indeed, the specification describes one embodiment of the invention that may issue a series of SQL statements against a database (Application, page 21). Accordingly, the "defining" required by claim 1 cannot be said to merely be an abstract idea in a persons mind, as maintained by the Final Office Action (Paragraph 3, Page 3), because the "defining" in claim 1 results in the defining in a database of two category structures, the existence of the category structures being

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independent of the consciousness of a particular person, objectively knowable, and required for subsequent storage and retrieval of data items.

Moreover, Applicant respectfully points out that as of November 22, 2005 the Mental Step Test is not to be applied by examiners in determining whether the claimed invention is patent eligible subject matter (USPTO OG Notices: 22 November 2005, "Interim Guidelines for Examination of Patent Applications for Patent Subject matter Eligibility, Annex 3, Improper Tests for Subject Matter Eligibility"). Accordingly, the Final Office Action's allegation that subject matter of claim 1 is not eligible subject matter for the reason that the "defining" of claim 1 "may simply be defining in [a] person's mind" (Final Office Action, Paragraph 3, Page 3) is improper. Applicant respectfully requests the Examiner to reconsider the present rejection without reliance on the Mental Step Test.

The result achieved by claim 1 may also said to be practical because the defining in the database of category structures, according to the limitations of claim 1, is prerequisite to using the category structures to classify and/or identify data items according to the limitations of claim 1. Merely for example, the present application describes the following embodiment:

The database may, in one exemplary embodiment, support a web site that classifies data items for presentation to a user via a browser.

Application, Paragraph 48.

Certainly the defining of category structures in a database that supports a web site that classifies data items according to the limitations of claim 1 for presentation to a user via browser must be said to be practical. Finally, the "defining," as recited in claim 1, may be repeated and therefore must be said to be concrete.

Claims 3-6 and 8-12, depend on independent claim 1. If an independent claim is patentable subject matter under 35 U.S.C. § 101 then, any claim depending there from also includes patentable subject matter and rejection of claims 3-6 and 8-12 under 35 U.S.C. § 101 is also addressed by the above remarks.

# §103 Rejection of the Claims

Claims 1, 3-6, 8-12, 14-18 and 20-29 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ortega et al. (U.S. 6,489,968) in view of Fohn et al. (U.S. 6,460,025).

Applicable Law under 35 U.S.C. §103

In rejecting claims under 35 U.S.C. §103, the Examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. *See* M.P.E.P. §2142.

In the recent decision of the Supreme Court on KSR Int'l Co. v. Teleflex Inc.<sup>1</sup>, the analysis of obviousness previously set forth in Graham v. John Deere Co. of Kansas City<sup>2</sup>, was reaffirmed. The Court in Graham set out an objective analysis for applying §103 as follows:

"Under §103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined."

When claim elements are found in more than one prior art reference, the fact finder must determine "whether a person of ordinary skill in the art, possessed with the understandings and knowledge reflected in the prior art, and motivated by the general problem facing the inventor, would have been led to make the combination recited in the claims." In re Kahn<sup>4</sup>. In so doing, the Examiner must make the factual determinations set forth in Graham v. John Deere Co. of Kansas City<sup>5</sup>.

Further, to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*<sup>6</sup>. "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*<sup>7</sup>.

<sup>&</sup>lt;sup>1</sup>127 S.Ct. 1727, 82 USPQ.2d 1385 (2007).

<sup>&</sup>lt;sup>2</sup> 383 U.S. 1, 17, 86 S.Ct. 684, 15 L.Ed.2d 545 (1966).

<sup>&</sup>lt;sup>3</sup> The Court in KSR v. Teleflex, at page 1730, quoted the analysis of Graham from page 18.

<sup>&</sup>lt;sup>4</sup> 441 F.3d 977, 988, 78 USPQ2d 1329, 1337 (Fed. Cir. 2006).

<sup>&</sup>lt;sup>5</sup> 383 U.S. 1 at 467.

<sup>6 490</sup> F.2d 981, 180 USPQ 580 (CCPA 1974).

<sup>&</sup>lt;sup>7</sup> 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

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Office personnel must rely on the applicant's disclosure to properly determine the meaning of the claims. Markman v. Westview Instruments<sup>8</sup>.

Applicants believe the issue of patentablity over Ortega, whether alone or in combination with Fohn, is best be understood with regard to claim 14.

### Claim 14 includes the following limitation:

...automatically attributing a second category, of a second alternative hierarchy of categories, to the data item...

...the data item is user-classifiable under the first hierarchy of categories...

The Office Action, in rejecting the above attributing step of claim 14, highlights the following:

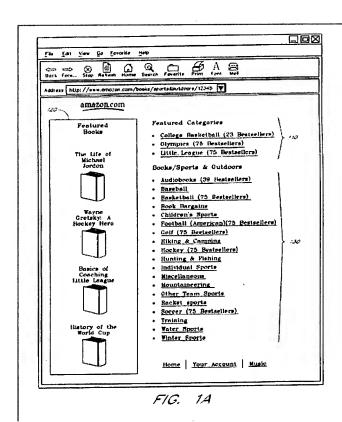
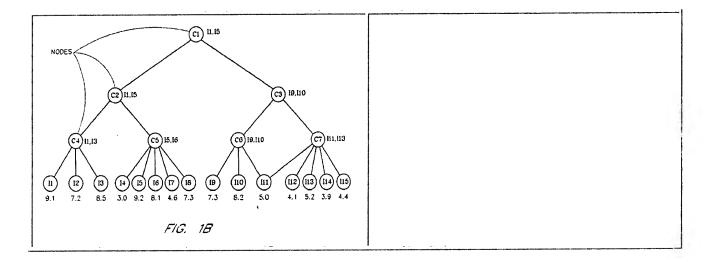


FIG. 1A illustrates an example Web page that includes an example set of featured book categories 110 and featured book titles 120. As depicted by the figure, the "featured" book categories 110 and "featured" book titles 120 are derived from the "Sports & Outdoors" branch of the browse tree which is the branch currently selected for viewing. For example, the category "Olympics" is featured even though it is actually found under the following path: Books/Sports & Outdoors/Events/Olympics, and the book "Wayne Gretsky: A Hockey Hero" is featured even though it would be found under the following path: Books/Sports & Outdoors/Hockey. The featured books and categories are displayed as respective hyperlinks that provide a direct path to the corresponding books and categories. This gives the user quicker access to the most popular leaf categories and books.

<sup>8 52</sup> F.3d 967, 980, 34 USPQ2d 1321, 1330 (Fed. Cir.) (en banc), aff 'd, U.S., 116 S. Ct. 1384 (1996).

Ortega Figure 1A, col. 7, lines 5-19.

The above Figure from Ortega illustrates a Web page. The Web page is addressed for viewing a branch of a browse tree, selected featured book categories under the branch, and book titles under the branch. Specifically, the "Address" box on the Web page identifies "Sports & Outdoors" branch of the browse tree.

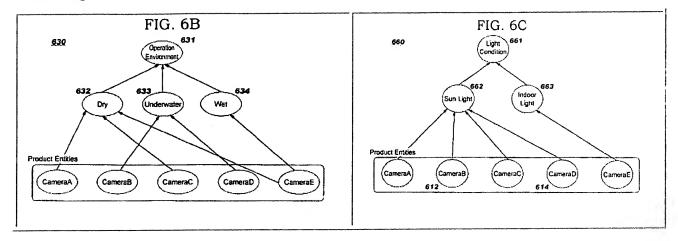


The above example browse tree is used to describe a preferred process of the invention related by Ortega.

Claim 14 requires automatically attributing a second category, of a second alternative hierarchy of categories, to a data item that is user-classifiable under a first hierarchy of categories. In contrast, Figure 1B of Ortega and does not illustrate a second alternative hierarchy of categories. Indeed, the Office Action looks to Fohn because "Ortega does not explicitly disclose an alterative second hierarch of categories" (Office Action, Page 4, bottom paragraph). Further, nothing in the first quote from Ortega teaches or suggests that any distinction may be made with respect to a user classification of the data item in the browse tree. Accordingly, Ortega cannot teach or suggest the limitations of claim 14.

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Fohn relates a system for improving user exploration (e.g. navigation and browsing) through one or more previously created hierarchies of information. 9 Fohn discloses the following:



This example of catalog exploration uses the hierarchies 600, 630, and 660 in FIGS. 6A, 6B, and 6C. Each of these hierarchies is a category (i.e., node) hierarchy, and has associated products (i.e., entities), which in this example are cameras. Note that the multiple hierarchies 600, 630, 660 reside over a single set 610 of entities, and that each entity may or may not be associated with a node in a particular hierarchy.

Fohn, col. 20, lines 51-58

The above Figures from Fohn relate an example of a catalog. The catalog includes two hierarchies of categories (e.g., nodes) which reside over a single set of entities (e.g., cameras).

Claim 14 requires automatically attributing a second category, of a second alternative hierarchy of categories, to a data item that is user-classifiable under a first hierarchy of categories. In contrast, the above quotes from Fohn neither teach or suggest an automatic attributing of a category associated with one hierarchy of categories to a data item that is userclassifiable under another hierarchy of categories. Indeed, the solution related by Fohn is based on a prior creation of the above hierarchies the details of which, in regard to the above quoted limitations of claim 14, are never provided. Consider the following:

<sup>&</sup>lt;sup>9</sup> Fohn, col. 1, lines 1-11; col. 4, lines 24-25, col. 8, line 39.

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This solution is based on the prior creation of two necessary pieces of information, both of which are commonly available in any electronic catalog system (e.g., a catalog created using IBM's Net.Commerce product). First, a hierarchy of nodes that serves to categorize entities is required. This structure will be organized as a hierarchy of category nodes. The shape of this hierarchy (that is, the number of levels and the number of nodes per level) will vary among particular electronic catalogs, depending upon the type of information represented by the catalog. As previously stated, examples of node hierarchies include book chapters, store departments, and other classifications, such as the example product categorization structure shown in FIG. 1A. Second, a base of entities is required, where the entities are instances of the category nodes. In most electronic catalogs, this base of entities comprises a base of products or parts, such as that illustrated in the example of FIG. 1B. <sup>10</sup>

Accordingly, Fohn cannot disclose the limitations of claim 14 because Fohn merely relies on a catalog creation system to create the above hierarchies without disclosing whether such a system automatically attributes a second category, of a second alternative hierarchy of categories, to a data item that is user-classifiable under a first hierarchy of categories.

Accordingly, Fohn cannot provide what is lacking in Ortega.

It follows that Ortega, whether alone or in combination with Fohn, cannot be said to teach or suggest the above quoted limitation because neither Ortega nor Fohn relate automatically attributing a second category, of a second alternative hierarchy of categories, to a data item that is user-classifiable under a first hierarchy of categories, as required by claim 14.

The above remarks are also applicable to a consideration of independent claims 1, 20, 28, and 29.

In addition, if an independent claim is nonobvious under 35 U.S.C. § 103 then, any claim depending therefrom is nonobvious and rejection of claims 3-6, 8-12, 15-18 and 21-27 under 35 U.S.C. § 103 is also addressed by the above remarks.

In summary, Ortega, whether considered separately of in combination with Fohn fails to teach or suggest each and every limitation of independent claims 1, 14, 20, 28 and 29 as is required to support a *prime facie* case of obviousness in rejecting of the independent claims of the present application under 35 U.S.C.§ 103.

Applicant respectfully submits that claims 1, 3-6 and 8-12 should not be rejected under 35 U.S.C. § 101 for the reason that the claimed inventions of independent claim 1 achieves a

<sup>&</sup>lt;sup>10</sup> Fohn, col. 8, lines 39-48.

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final result that is concrete, tangible and useful. Accordingly, the Examiner has not met his initial burden for establishing a *prima facie* case of unpatentability. For at least the foregoing reasons, the rejection of claims 1, 3-6 and 8-12 under 35 U.S.C. § 101 is without basis and should be withdrawn.

Applicant further respectfully submits that claims 1, 3-6, 8-12, 14-18, and 20-29 a should not be rejected under 35 U.S.C. § 101 for the reason that the claimed inventions of independent claim 1 achieves a final result that is concrete, tangible and useful. Accordingly, the Examiner has not met his initial burden for establishing a *prima facie* case of unpatentability. For at least the foregoing reasons, the rejection of claims 1, 3-6, 8-12, 14-18, and 20-29 under 35 U.S.C. § 103 is without basis and should be withdraw

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### Reservation of Rights

In the interest of clarity and brevity, Applicant may not have equally addressed every assertion made in the Office Action, however, this does not constitute any admission or acquiescence. Applicant reserves all rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any reference or of any of the present claims, the right to challenge or rebut any asserted factual or legal basis of any of the rejections, the right to swear behind any cited reference such as provided under 37 C.F.R. § 1.131 or otherwise, or the right to assert co-ownership of any cited reference. Applicant does not admit that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. To the extent that any rejection or assertion is based upon the Examiner's personal knowledge, rather than any objective evidence of record as manifested by a cited prior art reference, Applicant timely objects to such reliance on Official Notice, and reserves all rights to request that the Examiner provide a reference or affidavit in support of such assertion, as required by MPEP § 2144.03. Applicant reserves all rights to pursue any cancelled claims in a subsequent patent application claiming the benefit of priority of the present patent application, and to request rejoinder of any withdrawn claim, as required by MPEP § 821.04.

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# AMENDMENT AND RESPONSE UNDER 37 CFR § 1.114

Serial Number: 09/733,767 Filing Date: December 8, 2000

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#### **CONCLUSION**

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at 408-278-4046 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop RCE, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 4 day of January 2008.

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